

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Rec'd PCT/PTO 14 JUL 2005** *X2*

In re Patent Application of )

Tanel Tenson et al. )

Application No.: 10/531,870 )

Filed: April 19, 2005 )

For: SELECTION SYSTEM CONTAINING )  
NON-ANTIBIOTIC RESISTANCE )  
SELECTION MARKER )

Group Art Unit: Unassigned

Examiner: Unassigned

Confirmation No.: Unassigned

**FIRST INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed. However, copies of the listed U.S. patents and U.S. patent application publications are not enclosed since it is no longer required according to the July 11, 2003 waiver of the requirement for copies of cited U.S. patents and U.S. patent application publications in national patent applications filed after June 30, 2003 and international applications entering the national stage under 35 U.S.C. § 371 after June 30, 2003.

Also enclosed is a copy of the International Search Report in connection with corresponding International Application No. PCT/FI2004/000540.

**U.S. Patent Documents**

1. KHAN et al., U.S. Patent No. 6,162,433, issued on December 19, 2000.
2. ZHANG et al., U.S. Patent No. 5,843,760, issued on December 1, 1998.

**Foreign Patent Documents**

1. KROHN et al., International Publication No. WO 02/090558 A1 (Corrected Version), published on November 14, 2002.

**Non-Patent Document**

1. ANDERSSON et al., "Purification and preliminary X-ray crystallographic studies of recombinant L-ribulose-5-phosphate 4-epimerase from *Escherichia coli*, Protein Science, 1995, vol. 4, pp. 1648-1650, Oxford University Press, Oxford, England.
2. ARIZA et al., "A method for selection of forward mutations in *supF* gene carried by shuttle-vector plasmids," Carcinogenesis, 1993, vol. 14, n. 2, pp. 303-305, Oxford University Press, Oxford, England.
3. DATSENKO et al., "One-step inactivation of chromosomal genes in *Escherichia coli* K-12 using PCR products," PNAS, 2000, vol. 97, n. 12, pp. 6640-6645, National Academy of Sciences, Washington, D.C.
4. HERRERO et al., "Transposon Vectors Containing Non-Antibiotic Resistance Selection Markers for Cloning and Stable Chromosomal Insertion of Foreign Genes in Gram-Negative Bacteria," Journal of Bacteriology, 1990, vol. 172, n. 11, pp. 6557-6567, American Society for Microbiology, Washington, D.C.
5. ENGLESBERG et al., "L-Arabinose-sensitive, L-Ribulose 5-Phosphate 4-Epimerase-Deficient Mutants of *Escherichia coli*, Journal of Bacteriology, 1962, vol. 84, pp. 137-146, American Society for Microbiology, Washington, D.C.
6. WANG et al., "Cloning of Genes That Suppress an *Escherichia coli* K-12 Alanine Auxotroph When Present In Multicopy Plasmids," Journal of Bacteriology, 1987, vol. 169, n. 12, pp. 5610-5614, American Society for Microbiology, Washington, D.C.
7. YEW et al., "Utilization of L-Ascorbate by *Escherichia coli* K-12: Assignments of Functions to Products of the *yif-sga* and *yia-sgb* Operons," Journal of Bacteriology, 2002, vol. 184, n. 1, pp. 302-306, American Society for Microbiology, Washington, D.C.
8. LEVY, "Factors impacting on the problem of antibiotic resistance," Journal of Antimicrobial Chemotherapy, 2002, vol. 49, pp. 25-30, The British Society for Antimicrobial Chemotherapy, London, England.
9. ENGELBERG-KULKA et al., "Addiction Modules and Programmed Cell Death and Antideath in Bacterial Cultures," Annual Review of Microbiology, 1999, vol. 53, pp. 43-70.
10. SILVER et al., "Bacterial Heavy Metal Resistance: New Surprises," Annual Review of Microbiology, 1996, vol 50, pp. 753-789.

The documents are being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later. Since these documents are being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.


To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date July 14, 2005

By:

  
Susan M. Dadio  
Registration No. 40,373

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620

# **FIR** **INFORMATION DISCLOSURE** **STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number 1318  
 Filing Date April 19, 2005  
 First Named Inventor Tanel Tenson et al.  
 Examiner Name Unassigned  
 Attorney Docket Number 010315-224

## **U.S. PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	6,162,433		KHAN et al.	12-19-2000
	5,843,760		ZHANG et al.	12-01-1998

## **FOREIGN PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	STATUS						
					Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec
	02/090558	A1	International	11-14-2002				X			

## **NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	ANDERSSON et al., "Purification and preliminary X-ray crystallographic studies of recombinant L-ribulose-5-phosphate 4-epimerase from <i>Escherichia coli</i> , <u>Protein Science</u> , 1995, vol. 4, pp. 1648-1650, Oxford University Press, Oxford, England.
	ARIZA et al., "A method for selection of forward mutations in <i>supF</i> gene carried by shuttle-vector plasmids," <u>Carcinogenesis</u> , 1993, vol. 14, n. 2, pp. 303-305, Oxford University Press, Oxford, England.
	DATSENKO et al., "One-step inactivation of chromosomal genes in <i>Escherichia coli</i> K-12 using PCR products," <u>PNAS</u> , 2000, vol. 97, n. 12, pp. 6640-6645, National Academy of Sciences, Washington, D.C.
	HERRERO et al., "Transposon Vectors Containing Non-Antibiotic Resistance Selection Markers for Cloning and Stable Chromosomal Insertion of Foreign Genes in Gram-Negative Bacteria," <u>Journal of Bacteriology</u> , 1990, vol. 172, n. 11, pp. 6557-6567, American Society for Microbiology, Washington, D.C.
	ENGLESBERG et al., "L-Arabinose-sensitive, L-Ribulose 5-Phosphate 4-Epimerase-Deficient Mutants of <i>Escherichia coli</i> , <u>Journal of Bacteriology</u> , 1962, vol. 84, pp. 137-146, American Society for Microbiology, Washington, D.C.
	WANG et al., "Cloning of Genes That Suppress an <i>Escherichia coli</i> K-12 Alanine Auxotroph When Present In Multicopy Plasmids," <u>Journal of Bacteriology</u> , 1987, vol. 169, n. 12, pp. 5610-5614, American Society for Microbiology, Washington, D.C.
	YEW et al., "Utilization of L-Ascorbate by <i>Escherichia coli</i> K-12: Assignments of Functions to Products of the <i>yif-sga</i> and <i>yia-sgb</i> OPerons," <u>Journal of Bacteriology</u> , 2002, vol. 184, n. 1, pp. 302-306, American Society for Microbiology, Washington, D.C.
	LEVY, "Factors impacting on the problem of antibiotic resistance," <u>Journal of Antimicrobial Chemotherapy</u> , 2002, vol. 49, pp. 25-30, The British Society for Antimicrobial Chemotherapy, London, England.

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

**FIRST**  
**INFORMATION DISCLOSURE**  
**STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet	2	of	2	Application Number	10/531,870
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Complete if Known

Filing Date	April 19, 2005
First Named Inventor	Tanel Tenson et al.
Examiner Name	Unassigned
Attorney Docket Number	010315-224

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	ENGELBERG-KULKA et al., "Addiction Modules and Programmed Cell Death and Antideath in Bacterial Cultures," <u>Annual Review of Microbiology</u> , 1999, vol. 53, pp. 43-70.
	SILVER et al., "Bacterial Heavy Metal Resistance: New Surprises," <u>Annual Review of Microbiology</u> , 1996, vol 50, pp. 753-789.

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